IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	Daniel Bertram, Yiqing Lai, Paul Rad, Weijia Zhang		
Assignee:	Dell Products L.P.		
Title:	System and Method for Maintaining Network Connectivity During Remote Configuration of an Information Handling System		
Serial No.:	10/783,299	Filing Date:	February 20, 2004
Examiner:	Christine T. Duong	Group Art Unit:	2616
Docket No.:	DC-06303	Customer No.:	33438

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SUPPLEMENTAL APPEAL BRIEF UNDER 37 CFR § 41.37

Dear Sir:

Applicant submits this Appeal Brief pursuant to the Notice of Appeal filed in this case on February 18, 2008 and the Notification dated April 17, 2008. The fee for this Appeal Brief is was previously paid electronically via the USPTO EFS. The Board is authorized to deduct any other amounts required for this supplemental appeal brief and to credit any amounts overpaid to Deposit Account No. 502264.

I. REAL PARTY IN INTEREST - 37 CFR § 41.37(c)(1)(i)

The real party in interest is the assignee, Dell Products L.P. as named in the caption above and as evidenced by the assignment set forth at Reel 015020, Frame 0978.

II. RELATED APPEALS AND INTERFERENCES - 37 CFR § 41.37(c)(1)(ii)

Based on information and belief, there are no appeals or interferences that could directly affect or be directly affected by or have a bearing on the decision by the Board of Patent Appeals and Interferences in the pending appeal.

III. STATUS OF CLAIMS - 37 CFR § 41.37(c)(1)(iii)

Claims 1-20 are pending in the application. Claims 1-20 stand rejected in the Advisory Action dated February 13, 2008, however, Claims 6 and 14-16 were indicated as objected to in the office action dated December 28, 2007. Claims 1, 3-5, 7-8 and 17-20 stand rejected under 35 U.S.C. § 102(e) as anticipated by Knop (Publication US 2005/0013255). Claims 2 and 9-13 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Knop in view of Pham (U.S. Patent No. 6,629,145). The rejection of Claims 1-20 is appealed. Appendix "A" contains the full set of pending claims.

IV. STATUS OF AMENDMENTS - 37 CFR § 41.37(c)(1)(iv)

A Response to Final Office Action was filed and entered on January 29, 2008. An Advisory Action dated February 13, 2008 rejected Claims 1-20.

V. SUMMARY OF CLAIMED SUBJECT MATTER - 37 CFR § 41.37(c)(1)(v)

A PXE client on a network interface card (NIC) initiates a network boot from a PXE server using a dynamic IP address to retrieve configuration information including a static IP address for configuration of the NIC (page 2, lines 5-19). Incorrect configuration of the NIC often results in failure of communication using the static address (page 2, line 20 – page 3, line 2). Claim 1 recites a system for remote configuration of an information handling system comprising a remote deployment management station (Figure 1, element 16; page 5, line 15) that deploys configurations, an information handling system (Figure 1, element 10; page 5, line 13) having plural network communication components (Figure 1, element 12; page 5, line14) in an unconfigured state, a configuration agent (Figure 1, element 22; page 5, line 21) running on the information handling system to configure the network communication components, a management connection engine (Figure 1, element 28; page 5, line 25- page 6, line 7) that determines if a network communication component connects with the remote deployment management station after configuration by the configuration agent, and a configuration adjustment engine (Figure 1, element 30; page 6, lines 8-24) that adjusts configuration of the network communication component if it fails to connect with the remote deployment management station after configuration by the configuration agent. Claim 2 recites that the configuration adjustment engine adjusts the configuration with a dynamic Internet address to

send a re-configuration request (page 6, line 18). Claim 9 recites a method for remote configuration comprising retrieving configuration information with a dynamic address (Figure 2 element 46; page 6, line 32), applying the configuration to the network communication component (Figure 2, element 48; page 6, line 32), attempting communication with a static address determined from the configuration information (Figure 2, element 50; page 7, line 2), determining a failure to communicate (Figure 2, element 50; page 7, line 5), automatically adjusting the network communication component configuration (Figure 2, element 56; page 7, line 15), and communicating with the adjusted configuration (Figure 2, element 58; page 7, line 17). Claim 10 recites that automatically adjusting comprises adjusting the network communication component to communicate with a dynamic address (page 7, line 10). Claim 17 recites an information handling system (Figure 1, element 10; page 5, line 13) comprising plural network communication components operable to communicate with a dynamic or static address (Figure 1, element 12; page 5, line 14), a configuration agent that configures the components (Figure 1, element 22; page 5, lines 18-24), a management connection engine to determine if the components communicate over a network (Figure 1, element 28; page 5, line 31 – page 6, line 4), and a configuration adjustment engine that adjusts the configuration of components that are unable to communicate over the network after application of the configuration information (Figure 1, element 30; page 6, lines 8-24). Claim 20 recites that communication is adjusted to a dynamic address if communication with a configured static address fails Page 6, line 18).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL - 37 CFR § 41.37(c)(1)(vi)

Whether Claims 1, 17 and 20 stand properly rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Publication No. 2005/0013255 A1 issued to Knop et al..

Whether Claims 2, 9 and 10 stand properly rejected under 35 U.S.C. § 103(a) as being unpatentable over Knop in view of U.S. Patent No. 6,629,145 B1 issued to Pham et al.

VII. ARGUMENT - 37 CFR § 41.37(c)(1)(vii)

Claims 1, 17 and 20 stand improperly rejected as anticipated by Knop because Knop fails to teach, disclose or suggest a configuration adjustment engine. Claims 2, 9 and 10 stand improperly rejected as obvious over Knop in view of Pham because a combination of Knop and Pham fail to teach, disclose or suggest adjusting a network component configuration having a static address to communicate with the network component, such as by using a dynamic address. Accordingly, Applicants respectfully request that the Board reverse the Examiner's rejections of Claims 1, 2, 9, 10, 17 and 20.

A. Claims 1, 3-5 and 7-8

Knop discloses an availability unit and monitor unit that monitor computers interfaced with a network to attempt to recover unavailable network interfaces.

Claim 1 recites, in part, "a configuration adjustment engine running on the information handling system and interfaced with the management connection engine, the configuration adjustment engine operable to adjust the configuration of the network communication component if the management connection engine determines the network communication component fails to connect with the remote deployment management station after configuration by the configuration agent."

Knop cannot anticipate Claim 1 because Knop fails to teach, disclose or suggest all elements recited by Claim 1. For example, Knop fails to teach, disclose or suggest a configuration adjustment engine "running on the information handling system" that adjusts "the configuration of the network communication component." In paragraph [0044] relied upon by the Examiner, Knop discloses an availability unit 102 that performs recovery procedures when a network interface is not responding, however, the recovery "includes re-routing of communications from a non-responsive network interface to another responsive network interface," not adjusting of the configuration of the failed network interface as is recited by Claim 1. Further, the availability unit of Knop does not run on an information handling system having the failed network interface as is recited by Claim 1. Accordingly, Knop cannot

anticipate Claim 1 and Applicants respectfully request that the Board reverse the rejection of the Examiner. Claims 3-5 and 7-8 depend from Claim 1 and or fall with Claim 1.

B. Claim 2

Pham discloses remote configuration of a server appliance.

Claim 2 recites, in part, "the configuration adjustment engine adjusts the configuration by setting the network communications component to communicate with a dynamic Internet address and send a re-configuration request to the remote deployment management station."

Knop and Pham cannot make obvious Claim 2 because Knop and Pham fail to teach, disclose, or suggest all elements recited by Claim 2. For example, Knop and Pham fail to teach, disclose, or suggest that a "configuration adjustment engine adjusts the configuration by setting the network communications component to communicate with a dynamic Internet address and send a re-configuration request to the remote deployment management station." Since, as explained with respect to Claim 1, Knop does not re-configure a failed component, Pham cannot suggest using a dynamic IP address to re-configure a failed component. Accordingly, Knop and Pham cannot make obvious Claim 2 and Applicants respectfully request that the Board reverse the rejection of the Examiner.

C. Claim 6

Applicants request clarification from the Examiner that Claim 6 is allowable.

D. Claim 9

Claim 9 recites, in part, "automatically adjusting the network communication component configuration at the information handling system."

Knop and Pham cannot make obvious Claim 9 because Knop and Pham fail to teach, disclose or suggest all elements recited by Claim 9. For example, Knop and Pham fail to teach, disclose or suggest "automatically adjusting the network communication component configuration at the information handling system." The availability unit of Knop does not re-configure a failed network interface, but rather routes communication from a non-responsive

interface to a responsive network interface. Pham does not use a static IP address as recited by Claim 9. Accordingly Knop and Pham cannot make obvious Claim 9 and Applicants respectfully request that the Board reverse the rejection of the Examiner.

E. Claims 10-13

Claim 10 recites, in part, "adjusting the network communication component to communicate with a dynamic address."

Knop and Pham cannot make obvious Claim 10 because Knop and Pham fail to teach, disclose or suggest all elements recited by Claim 10. For example, Knop and Pham fail to teach, disclose or suggest adjusting the configuration of a failed network communication component to communicate with a dynamic IP address instead of a static IP address. Indeed, Pham teaches away from the combination suggested by the Examiner by stating "Since using a static IP assignment is incompatible with using DHCP..." (Col. 1, line 67 – Col. 2, line 1). Accordingly, Knop and Pham cannot make obvious Claim 10 and Applicants respectfully request that the Board reverse the rejection of the Examiner. Claims 11-13 depend from Claim 10 and stand or fall with Claim 10.

F. Claims 14-16

Applicants request clarification from the Examiner that Claims 14-16 are allowable.

G. Claims 17-19

Claim 17 recites, in part, "a configuration adjustment engine interfaced with the management connection engine and operable to adjust the configuration of the network communication components that are unable to communicate over the network after application of the configuration information by the configuration agent."

Knop cannot anticipate Claim 17 because Knop because Knop fails to teach, disclose or suggest all elements recited by Claim 17. As explained above with respect to Claim 1, Knop does not adjust a failed network component but rather re-routes communications away from the failed network component. Accordingly, Knop cannot anticipate Claim 17. Claims 18-19 depend from Claim 17 and stand or fall with Claim 17.

H. Claim 20

Claim 20 recites, in part, "the configuration adjustment engine commands a selected NIC to communicate with a dynamic address if communication fails with each of the IP addresses."

Knop cannot anticipate Claims 20 because Knop fails to teach, disclose, or suggest all elements recited by Claim 20. For example, Knop fails to teach, disclose, or suggest the use of both static and dynamic IP addresses in configuration of a network and recovery of a failed network communication component. Accordingly, Knop cannot anticipate Claim 20 and Applicants request that the Board reverse the rejection of the Examiner.

VIII. CLAIMS APPENDIX - 37 CFR § 41.37(c)(1)(viii)

A copy of the pending claims involved in the appeal is attached as Appendix A.

IX. EVIDENCE APPENDIX - 37 CFR § 41.37(c)(1)(ix)

None

X. RELATED PROCEEDINGS APPENDIX - 37 CFR § 41.37(c)(1)(x)

There are no related proceedings.

XI. CONCLUSION

For the reasons set forth above, Applicant respectfully submits that the rejection of pending Claims 1-20 is unfounded, and requests that the rejection of claims 1-20 be reversed.

The Commissioner is authorized to deduct any additional fees which may be necessary and to credit any overpayment to Deposit Account No. 502264.

I hereby certify that this correspondence is being electronically submitted to the COMMISSIONER FOR PATENTS via EFS on April 18, 2008.

/Robert W. Holland/

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Respectfully submitted,

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CLAIMS APPENDIX "A" - 37 CFR § 41.37(c)(1)(viii)

1. A system for remote configuration of an information handling system, the system comprising:

a remote deployment management station operable to deploy configurations to plural information handling systems;

an information handling system interfaced with the remote deployment management station by one of plural network communication components, the plural network communication components operating in an unconfigured state;

a configuration agent running on the information handling system and operable to configure the network communication components;

a management connection engine running on the information handling system and operable to determine if a network communication component connects with the remote deployment management station after configuration by the configuration agent; and

a configuration adjustment engine running on the information handling system and interfaced with the management connection engine, the configuration adjustment engine operable to adjust the configuration of the network communication component if the management connection engine determines the network communication component fails to connect with the remote deployment management station after configuration by the configuration agent.

2. The system of claim 1 wherein the configuration adjustment engine adjusts the configuration by setting the network communications component to communicate with a dynamic Internet address and send a re-configuration request to the remote deployment management station.

3. The system of claim 1 wherein the configuration adjustment engine is further operable to adjust the configuration by applying configuration information of each of the plural network communication components to the one network communication component to determine if the one network communication component establishes communication with the configuration information of another of the plural network communication components.

4. The system of claim 3 wherein the configuration adjustment engine is further operable to adjust the configuration by setting the network communications component to communicate with a dynamic Internet address if the network communication component is unable to establish communication with the remote deployment management station by application of the configuration information of the plural network communication components.

5. The system of claim 4 wherein the configuration agent is further operable to send a message by the dynamic Internet address to the remote deployment management station that a configuration error has occurred.

6. The system of claim 5 further comprising a management station user interface in communication with the remote deployment management station and operable to communicate new configuration information to the configuration agent at the dynamic Internet address.

7. The system of claim 4 wherein the network communication components comprise network interface cards.

8. The system of claim 7 wherein the configuration information comprises static IP addresses for the network interface cards.

9. A method for remote configuration through a network of an information handling system, the method comprising:

retrieving network configuration information through a network communication component of the information handling system using a dynamic address;

applying the network configuration information to the network communication component;

attempting network communication with the network communication component using a static address determined from the network configuration information;

determining that the attempted network communication failed;

automatically adjusting the network communication component configuration at the information handling system; and

communicating with the network through the adjusted configuration of the network communication component.

10. The method of claim 9 wherein automatically adjusting further comprises:

adjusting the network communication component to communicate with a dynamic address.

11. The method of claim 10 wherein communicating with the network through the adjusted configuration further comprises:

sending a report that the network configuration information is erroneous; and

receiving new network configuration information.

12. The method of claim 11 wherein the network communication component comprises a NIC and the configuration information comprises a static IP address of the NIC.

13. The method of claim 10 wherein automatically adjusting further comprises:

determining the configuration information of a second network communication component of the information handling system; and

applying the configuration information of the second network communication component to the first network communication component.

14. The method of claim 13 wherein automatically adjusting further comprises:

determining failure of an attempt to communicate by the first network communication component with the configuration information of the second network communication component; and

adjusting the first network communication component to communicate with a dynamic address.

15. The method of claim 14 wherein the network communication components comprise NICs and the configuration information comprises IP addresses.

16. The method of claim 15 further comprising:

sending new IP addresses for the NICs to the dynamic address; and

configuring the NICs with the new IP addresses.

17. An information handling system comprising:

plural network communication components, each operable to communicate with a dynamic or static address;

a configuration agent operable to apply configuration information to the network communication components;

a management connection engine operable to determine whether the network communication components are able to communicate over a network; and

a configuration adjustment engine interfaced with the management connection engine and operable to adjust the configuration of the network communication components that are unable to communicate over the network after application of the configuration information by the configuration agent.

18. The information handling system of claim 17 wherein the network communication components comprise NICs operable to communicate with a static address when configured with a correct IP address.

19. The information handling system of claim 18 wherein the configuration adjustment engine applies the IP addresses of each NIC to a selected NIC to attempt to communicate over the network.

20. The information handling system of claim 19 wherein the configuration adjustment engine commands a selected NIC to communicate with a dynamic address if communication fails with each of the IP addresses.

EVIDENCE APPENDIX - 37 CFR § 41.37(c)(1)(ix)

None

RELATED PROCEEDINGS APPENDIX - 37 CFR § 41.37(c)(1)(x)

There are no related proceedings.